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SUPERIOR COURT OF WASHINGTON IN AND FOR THURSTON COUNTY	
8 9 10 11 12 13 14 15 16 17	<p>WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, Plaintiff, vs. SEATTLE TUNNEL PARTNERS, et al, Defendants</p> <p>No. 16-2-00980-34</p> <p>FINDINGS OF FACT AND CONCLUSION OF LAW RE EVIDENTIARY HEARING ON SPOILATION</p>

18 This Court held an evidentiary hearing on January 9 and 10, 2019, following a Motion for
19 Spoliation Sanctions filed by the Washington State Department of Transportation (WSDOT).
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21 The Motion was opposed by Seattle Tunnel Partners (STP). The Motion was originally heard on
22 October 26, 2018. Prior to that date, the Court considered the following pleadings filed
23 regarding the Motion.

24 1. WSDOT's Motion for Spoliation Sanctions and all appendices attached thereto;
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26 2. The Declaration of David R. Goodnight in support of WSDOT's Motion for
27 Spoliation Sanctions, and all exhibits attached thereto;

28 FINDINGS OF FACT AND CONCLUSION OF LAW RE EVIDENTIARY HEARING ON SPOILATION
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- 1 3. STP's Opposition to WSDOT's Motion for Spoliation Sanctions;
- 2 4. The Declaration of Richard W. Klopp in support of STP's Opposition to
- 3 WSDOT's Motion for Spoliation Sanctions, and all exhibits attached thereto;
- 4 5. The Declaration of Jeff Huber in support of STP's Opposition to WSDOT's
- 5 Motion for Spoliation Sanctions, and all exhibits attached thereto;
- 6 6. The Declaration of Juan Luis Magro in support of STP's Opposition to WSDOT's
- 7 Motion for Spoliation Sanctions;
- 8 7. The Declaration of Tom Krider in support of STP's Opposition to WSDOT's
- 9 Motion for Spoliation Sanctions;
- 10 8. The Declaration of Robert Nida in support of STP's Opposition to WSDOT's
- 11 Motion for Spoliation Sanctions;
- 12 9. The Declaration of James Malloy in support of STP's Opposition to WSDOT's
- 13 Motion for Spoliation Sanctions, and all exhibits attached thereto;
- 14 10. Response of Hitachi Zosen U.S.A, Ltd. and Hitachi Zosen Corporation to
- 15 WSDOT's Motion for Spoliation Sanctions;
- 16 11. The Declaration of Andrew Greene in support of Hitachi Zosen's Response to
- 17 WSDOT's Motion for Spoliation Sanctions, and all exhibits attached thereto;
- 18 12. WSDOT's Reply to Hitachi Zosen's Response to WSDOT's Motion for
- 19 Spoliation Sanctions;
- 20 13. The Declaration of Rachel D. Groshong in support of WSDOT's Reply to Hitachi
- 21 Zosen's Response to WSDOT's Motion for Spoliation Sanctions, and all exhibits
- 22 attached thereto;
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14. WSDOT's Reply in support of Motion for Spoliation Sanctions; and
15. The Declaration of Keith Cline in support of WSDOT's Motion for Spoliation Sanctions.

At the hearing on October 26, 2018, the parties to the Motion agreed to an evidentiary hearing. The evidentiary hearing was eventually scheduled for January 9 and 10, 2019. Prior to the evidentiary hearing, WSDOT and STP agreed to stipulated facts, which the Court accepts and finds for the purposes of the Motion for Spoliation Sanctions. The Stipulation was filed on December 7, 2018, and the Court will not repeat the agreed facts here. In some instances, the Court's findings expand on or clarify stipulated facts. To the extent that the Court's findings contradict the stipulated facts, the Court's findings supersede the stipulated facts for the purpose of the Motion.

At the evidentiary hearing, the Court considered the testimony of witnesses and the exhibits admitted into evidence. The Court has also heard the argument of counsel. After considering the testimony and exhibits admitted at that hearing, the parties submitted proposed findings and conclusions. The parties were granted additional time following the hearing to provide proposed findings and conclusions considering the volume of evidence. Because of that delay and other hearings, trials, and matters the Court had scheduled to be heard, as well as other factors that the Court will describe if the parties request, the Court took longer than expected to issue this decision.

The Court now issues the following findings and conclusions.

FINDINGS OF FACT

1. This litigation, a consolidated case under the above-referenced case number, concerns the stoppage of the Tunnel Boring Machine (TBM) in December 2013. The cause of the stoppage is a contested factual issue in this litigation. Another contested factual issue is whether a steel pipe, referred to as Test Well 2 (TW-2) is a Differing Site Condition (DSC) under the Design-Build Contract between WSDOT and STP.
2. The Motion for Spoliation Sanctions concerns specific evidence which cannot be located. The parties have agreed that such evidence is gone, and the Court finds that the specific evidence cannot and will not be located or made available. The missing evidence includes:
 - a. Pieces of the TW-2 steel pipe, which are designated by the parties and the Court as Pieces #1, #2, #3, #7, #8, and #9. This category also includes Piece #5, which is addressed in Finding of Fact 5;
 - b. an unnumbered piece of steel referenced in Finding of Fact 3, below;
 - c. two granite boulders, which were previously on a pallet along with many of the steel pipe pieces; and
 - d. one volume of the journal of Greg Hauser, which covered the time period of December 2013 through February 2014.
3. By agreement of the parties, STP's General Superintendent, Tom McMahon, testified by prior video deposition testimony. His testimony was credible. He testified that a steel piece was found between screw 1 and screw 2 in the screw

1 conveyor of the TBM. However, the Court does not make any findings regarding
2 the size, shape, or condition of that piece because it was never photographed or
3 produced. For those reasons, the Court does not include this piece when using the
4 phrase "missing pipe pieces" in its findings and conclusions.
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6 4. After reviewing the conflicting evidence regarding the number of granite boulders,
7 the Court finds that there were two granite boulders collected, even though the
8 record contains references to three boulders or three granite pieces.
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10 5. The parties to the Motion do not agree that Piece #5 actually came from TW-2. The
11 Court finds that it probably did, but that cannot be determined with certainty.
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13 6. Pieces of TW-2 designated by the parties and the Court as Piece #4 and Piece #6,
14 which have been preserved and made available in discovery, total approximately
15 57 feet of TW-2, which was a 93-foot steel pipe. The missing Pieces (#1, #2, #3,
16 #5, #7, #8 and #9) total approximately 32 feet.
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18 7. On Wednesday, December 4, 2013, a portion of TW-2 came out of the ground after
19 the TBM came into contact with TW-2. On Thursday, December 5, 2013, STP
20 workers cut the pipe at ground level, creating Piece #1. STP workers collected
21 other pieces of metal starting on December 5, 2013, and continuing to January 24,
22 2014. On Friday, December 6, 2013, at about 5:00 a.m., the TBM mining advance
23 speed dropped dramatically. STP therefore stopped mining in the afternoon of
24 December 6, 2013 to investigate. Although efforts were made to begin the TBM
25 again, it stopped mining on December 7, 2013.
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8. In the early morning hours of December 5, 2013, pieces of steel casing were removed from the TBM conveyor belt. Those were Piece #2 and Piece #3. The two boulders were also removed from the TBM conveyor belt on December 5, 2013.
9. On Monday, December 9, 2013, WSDOT advised STP that the steel casing (without identifying specific pieces) which the TBM had encountered and which was pushed out of the ground on December 4, 2013, was part of TW-2.
10. Greg Hauser is employed by Dragados USA, a joint venture partner of STP. In the time period including December 2013 through at least 2015, he was STP's Deputy Project Manager. He testified at the evidentiary hearing and was credible. STP's work on the project was generally divided between tunnel mining and other civil works. Mr. Hauser's focus was on tunnel mining.
11. Mr. Hauser gave instructions to retain pieces of steel pipe coming off the TBM. His focus was on steel pieces, other pieces that were unusual, and pieces that were indicative of steel pipe. Mr. Hauser also expected that the two granite boulders would be maintained.
12. When Mr. Hauser was giving these instructions, he understood that there may be a Differing Site Condition (DSC) claim by STP against WSDOT. Mr. Hauser was aware that both STP and WSDOT would want to have access to pieces of the steel pipe. He understood that all pieces of the steel pipe and the boulders were important to both sides.

1 13. Mr. Hauser never indicated that photographs would be sufficient. Rather, Mr.
2 Hauser wanted each piece maintained so that everyone involved had the ability to
3 analyze it, look at it, measure it, weigh it, or do anything else that was available to
4 determine what happened. He knew that the physical objects were critical and
5 important.

6 14. Tom McMahon was employed by STP as the General Superintendent and he ran
7 all of the crews. Mr. McMahon's direct supervisor was Juan Luis Magro, STP
8 Construction Manager. Mr. McMahon testified at the evidentiary hearing by video.
9 He testified credibly, except with regard to expert opinions and conclusions as to
10 the TBM stoppage. Mr. McMahon recognized that he is not an expert in that area.
11 15. STP Foreman Jeff Huber testified at trial. His testimony was mostly credible, but
12 often lacked detail. Mr. Huber was instructed by Mr. McMahon to preserve
13 materials. Mr. Huber testified that he passed the instruction along to his crew and
14 he understood that the same instructions were given to all STP site personnel orally.
15 However, his testimony indicated that the crew experienced turnover, and there was
16 no system for ensuring that each person who had access to the missing pipe pieces
17 and boulders was told of the importance of the materials and the need to retain
18 them.
19 20 21 22 23 24 25 26 27 28 16. Mr. Hauser's counterpart at WSDOT was Matthew Preedy. Mr. Preedy's title at
WSDOT was "Deputy Program Administrator." As counterparts on the tunnel
project, Mr. Preedy and Mr. Hauser had regular conversations both on and off the
jobsite.

17. Mr. Preedy testified credibly that he had a good working relationship with Mr. Hauser and he believed Mr. Hauser to be an honest person and an ethical person. Mr. Preedy's understanding was that STP had agreed to retain the pieces of steel pipe and boulders that came out of the TBM.
18. Mr. Hauser testified quite sincerely that everyone thought he had secured the pieces of steel pipe and boulders, so they did not talk to him about it.
19. On December 6, 2013, Mr. Hauser notified multiple STP managers that they should definitely keep a log and file of any such debris that they encounter. He stated, "hopefully it is a thin file but we need to maintain it just in case." Therefore, STP's efforts to start collecting data to support a potential DSC claim against WSDOT began as early as December 6, 2013.
20. On December 10, 2013, Mr. Hauser instructed Carl Neagoy, STP's Tunnel Quality Assurance Inspector, to gather all steel and boulders that were recovered from the TBM, and directed him to be sure they are placed somewhere where they will not disappear or get covered up. In response to that, Mr. Neagoy sent an email on December 11, 2013, to Mr. Hauser and copied Tom McMahon and Juan Luis Magro, stating:

We now have three pieces of steel, two smashed ones that came through the screw, and one straight piece that came up through the surface grade by Jackson St., and three pieces of granite.

The items are all together, covered up with plastic, and out of sight of the gates.

They are located next to the Porta-Potty, under the segments stacks by the brass board, where the operators have their break area

The crew have been told not to move the stuff around, and just leave it alone.

21. Although the email referenced in the preceding paragraph, and testimony at the hearing indicated that the crew had been informed, it is not clear that all persons who had access to the location of the pallet could have been informed of the importance of the material. Nothing was posted on the pallet. There was no evidence of written communication explaining that the materials had to be preserved that was sent to all staff of STP and all subcontractors and all who had access that the materials had to be preserved.
22. The pallet referenced in the preceding two paragraphs, and mentioned in conversations and emails, was a wooden pallet. The pallet was photographed with some of the missing pipe pieces and boulders on it. The pallet was kept in the job site area, which was a five-acre yard exposed to the elements, although areas within the job site were underground and the job site yard also included some enclosed areas. Though only authorized persons and vehicles were allowed access, it included TBM, many building materials, and vehicle traffic. There was no barrier between the pallet and the rest of the job site. The wooden pallet was kept uncovered. Any workers, inspectors, observers, drivers, and anyone else who had access to the large, open job site had access to the pallet.
23. Mr. Huber testified about an unwritten procedure under which, at the time the first pieces of steel pipe were found (Pieces #2 and #3), STP personnel were instructed to preserve and secure those pieces and make them available to anybody who needed to see them. Steel pieces that came off the TBM conveyor belt would be

1 put aside to allow day-shift personnel to bring them to the surface and place them
2 on a pallet where they could be photographed and measured as needed.

3 24. It is unclear how and to whom this unwritten procedure to preserve and secure
4 pieces was communicated. This procedure was not consistently followed for all of
5 the pieces, some of which were not brought up to the surface for days or even
6 brought back down again.

7 25. On January 2, 2014, STP performed an atmospheric intervention into the TBM's
8 excavation chamber which was located immediately behind the TBM's cutterhead.
9 The inspection revealed a piece steel, thought to be the TW-2 well casing,
10 protruding through the cutterhead into the excavation chamber. STP planned a
11 series of hyperbaric interventions in order to empty the excavation chamber to
12 remove the steel casing and any other obstructions.

13 26. During the process surrounding the atmospheric interventions, STP personnel
14 inside the TBM heard what sounded like metal passing through the screw conveyor
15 belt. Mr. Huber was told to investigate and retrieve that metal. On January 2, 2014,
16 Mr. Huber saw what was later described as Piece #5 coming off the TBM conveyor
17 belt into the muck bin.

18 27. Mr. Huber found and removed Piece #5 from the TBM's muck bin and cleaned
19 some of the muck off and from within it. Mr. Huber took Piece #5 to Mr.
20 McMahon's trailer, where he was photographed holding it.

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28. Mr. Huber testified that Piece #5's appearance was consistent with the other pieces of pipe recovered from the TBM and that Piece #5 was placed on the pallet with the other pieces.
29. Mr. Huber's testimony regarding the estimated weight of Piece #5 was inconsistent, which may be partially attributed to muck and dirt around and inside of it. The Court cannot determine the weight or size of Piece #5 with certainty.
30. After locating Piece #5 in the muck bin on January 2, 2014, Mr. Huber and other STP personnel searched the muck bin for other steel pieces. STP removed a collection of small metal fragments found in the TBM's muck bin (collectively, referred to as Piece #6). Piece #6 was stored in a bucket and is still in STP's possession.
31. Mr. Huber testified that Piece #5 and the fragments comprising Piece #6 must have come through the TBM conveyor belt immediately prior to their discovery and recovery because at that time the muck bin was cleared on a daily basis.
32. After the TBM stopped, STP continuously removed pieces of metal, steel, and rubber seal, carbide bits, and other debris from damaged TBM components.
33. On March 5, 2014, Mr. Magro communicated to Executives of Dragados, including STP's TBM Superintendent Juan Garnero, that it was important to have all of the pieces of the pipe to be successful in a claim, stating:

The million-dollar question (millions, really) is if at some point, a shard of the pipe could have entered the seal structure, breaking the seals.

That's why WSDOT was looking for the pieces of material inside the seals.

What we might think doesn't matter. The fact is that if we could prove this happened, we'd be talking about being in a position to win a claim for at least 8 figures

34. In response to that communication, Dragados Senior Vice President Julian Garvin Montealegre recognized that the pieces would have to be metallographically analyzed.
35. Mr. Hauser was aware in March 2014 that Dragados executives wanted to conduct a metallurgical analyses and testing on the recovered pieces of steel. Mr. Hauser attended weekly progress meetings between WSDOT and STP during which the testing of the recovered pieces had been discussed.
36. Beginning in February 2014, WSDOT and STP participated in weekly progress meetings. John Critchfield, a Resident Engineer working for WSDOT on the Project, facilitated the weekly progress meetings.
37. On February 10, 2014, Mr. Critchfield joined the project. He was tasked with investigating the preservation of the pieces of TW-2 by Matthew Preedy of WSDOT. Mr. Critchfield was not involved on the project when the pieces were recovered and had limited information about each of the pieces and their origin.
38. The weekly progress meetings between WSDOT and STP took place around a large conference table on the same day and time every week, in a conference room in one of the office trailers STP had on the project site. Mr. Hauser, Mr. McMahon, and Chris Dixon, Project Manager for STP, among others, typically attended the weekly progress meetings on behalf of STP and are listed on the meeting minutes when they attended.

1 39. The weekly progress meeting minutes show that a broad range of topics related to
2 the tunnel project were discussed. These include:
3 a. Safety (specific incidents were noted);
4 b. Construction Overview (current work and scheduled work listed);
5 c. Coordination;
6 d. Quality (including specific non-conformance issues);
7 e. Design Requirements;
8 f. Geotechnical Monitoring;
9 g. Bored Tunneling (which typically included status of the TBM repair and
10 STP's plans to analyze metal fragments);
11 h. Utilities and Service Agreements;
12 i. Environmental Permitting and Stormwater Management;
13 j. Public Information;
14 k. Maintenance of Traffic; and
15 l. Other Contacts and Technical Issues.

17 40. Mr. Critchfield took minutes of each meeting. Before the meeting minutes were
18 finalized, Mr. Critchfield would circulate a draft of them to everyone who was in
19 attendance for review. The minutes for each weekly progress meeting were
20 finalized the day after the subsequent meeting, when all attendees had been able
21 to review and comment on the contents.

23 41. In his email communication with Mr. Hauser on February 19, 2014, Mr.
24 Critchfield stated:

25 WSDOT has a concern about preserving physical samples, such as the
26 well casing shards and fragments flushed from the seal system.

27 1. Where will STP store these items?

2. Will WSDOT have access to look?
3. What testing does STP plan?

42. When no response to the email referenced in the preceding paragraph was received, Mr. Critchfield followed up. Mr. Critchfield eventually received a response that did not address each of the questions. In following up, Mr. Critchfield informed Mr. Hauser that WSDOT was “[s]till looking for pallet of steel well casing pieces.”

43. Mr. Hauser testified credibly that he did not have an answer to the requests in Mr. Critchfield’s emails, and he was relieved when Mr. Critchfield stopped asking because “he didn’t have to tell him that they were missing.”

44. Mr. Critchfield knew that some of the TW-2 pieces had been on a pallet, and that WSDOT inspectors had seen, photographed, and referenced in reports some of the pieces. He asked WSDOT inspectors to look for the pallet because he understood from them that the pallet was no longer at its prior location.

45. In February 2014, STP and WSDOT personnel were also collecting pieces of the TBM cutter bits and rubber seal pieces from around the TBM. On February 25, 2014, Mr. Critchfield reported to Mr. Preedy and Mr. Hauser that WSDOT had located rubber seal fragments in jars on Mr. Garnero’s desk labeled 2, 4, and 5, but were still looking for the pallet and steel well casing pieces.

46. Mr. Critchfield used the draft minutes from the prior weekly progress meeting as the agenda for the next meeting because there was a standard list of topics. Mr. Critchfield testified that the meeting minutes do not contain a specific request for the steel pieces to be preserved. Mr. Critchfield testified credibly that if someone from STP had mentioned in the meeting that pieces of the pipe had been lost, he would have recorded that information in the meeting minutes. The meeting

1 minutes reviewed by the Court do not show that STP reported the loss or
2 destruction of pipe pieces or boulders in the weekly progress meetings.

3 47. The weekly progress meeting minutes from February 27, 2014, state “[r]ecovered
4 fragments of Test Well 2 casing and TBM metal & seal materials: STP will
5 preserve all samples for examination. WSDOT suggests analyze metal fragments
6 to determine origin.” Mr. Dixon was present at that meeting.

7 48. The language contained in the preceding paragraph, or variations of it, is
8 presenting each set of weekly progress meeting minutes through May 1, 2014.
9 For example, the set of minutes for the May 1, 2014, meeting state: “STP expects
10 to obtain additional metal fragment samples during TBM disassembly. The need
11 for testing will be determined at that time.” It is not clear whether the reference in
12 the meeting minutes to “metal fragments recovered from TBM gearbox” was
13 intended to exclude all TW-2 pipe pieces. The Court finds that it was not.

14 49. Mr. Critchfield testified credibly that the reference to “preserve all samples” was
15 intended to include all metal fragments that may be of interest, including all
16 pieces of steel that were recovered from the TBM.

17 50. The draft minutes of the March 6, 2014, weekly meeting state that WSDOT’s
18 Strategic and Technical Advisory Team (STAT) “will look at samples on
19 Tuesday, 11 Mar.” However, the STAT’s report from its March 11, 2014, visit
20 includes no indication the STAT attempted to look at any metal fragments from
21 TW-2 or the TBM.

22 51. Mr. Critchfield testified credibly that during the discussions between WSDOT
23 and STP at the weekly progress meetings, “WSDOT wished for whatever physical
24 samples had been recovered be preserved for later testing. That was just simple
25 as that.” Mr. Critchfield understood, from the time of the first weekly progress
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1 meeting in February 2014 to the meetings in May 2014, that all pieces of steel and
2 metal that were recovered from the TBM would be preserved for examination and
3 testing.

4 52. When asked about these weekly progress meetings and preserving fragments of
5 TW-2 for testing by WSDOT, Mr. Hauser testified credibly that:

6 [I]t was our intention. It was certainly my intention. And my
7 understanding was that everybody on the site from STP and from WSDOT
8 knew that we wanted to maintain all of this material. And it was my
9 intention that this material be available for whoever wanted to test it, both
10 WSDOT or STP, and determine what the origins were or whatever else
they wanted to test on. And it was our intention that that material was
maintained and was available for whoever wanted to inspect it.

11 53. Mr. Preedy testified credibly that he was a party to conversations with STP in
12 early 2014 regarding preservation of the pieces of pipe and boulders recovered by
13 STP. Mr. Preedy testified credibly that WSDOT requested that the pieces of pipe
14 and boulders be retained by STP.

15 54. Mr. Hauser also recognized the importance of the boulders. Mr. Hauser wanted
16 the boulders maintained for the record, to allow everybody to look at them and
17 see what came through the TBM at the same time as the steel pieces were coming
18 through.

19 55. Mr. Hauser knew that boulders cause damage to cutting tools on the face of the
20 cutterhead, including those that have tungsten carbide on their face. There is
21 nothing unusual about boulders causing damage to different types of cutter tools.
22 There is also nothing unusual about cutting teeth wearing down as they encounter
23 soils, cobbles, and pebbles, even without the presence of granite boulders. For
24 these reasons, he said, cutting teeth are replaceable.

25 56. STP personnel, including Mr. Hauser, Tom McMahon, Mr. Magro, and Mr.
26 Garnero, looked at the boulders several times to determine their condition.

57. Mr. Hauser understood during the discussions at the weekly progress meetings that it was STP's intention to preserve the fragments of TW-2. He understood that everybody on the site from STP and from WSDOT knew that they wanted to maintain all material from TW-2.

58. Mr. Hauser's intention was to keep available for evidence, and maintain or retain every single piece of metal that came out of the screw, every single piece of metal that came off the conveyor belt and was found in the ground, and every single piece that related to the steel pipe. Mr. Hauser wanted pieces #7 and #8 to be preserved because they were evidence of what the TBM had run into and what came through the machine or was taken out of the machine. He wanted to maintain all of the pieces as evidence of a potential Differing Site Condition (DSC).

59. Although Mr. Hauser and Mr. McMahon testified that they passed on such an instruction orally through the chain of command to "all" STP employees, that testimony is not credible. The Court finds that is not credible because there is a lack of documentation or instructions that was certain to communicate such instruction to all STP employees, contractors, subcontractors, and everyone who had access to the location of the pallet. The location of the pallet was a massive uncovered job site, to which multiple workers and inspectors had access. Additionally, crews were working both a day and a night shift at that time and there is a lack of evidence of communication to all shifts. Finally, STP's own assertion that one of its employees had inadvertently discarded the items on the pallet implies that not all STP employees were aware of the instruction.

1 60. On December 12, 2013, STP submitted Proposed Change Order #250, asserting
2 that TW-2 was a Differing Site Condition under the Design-Build Contract between
3 WSDOT and STP.
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5 61. Section 11.5.4 of the Design-Build Contract provides:

6 "Design-Builder agrees that it shall give WSDOT access to all of Design-
7 Builder's books, records and other materials relating to the Work in
8 question, and shall cause its Subcontractors to do the same, so that WSDOT
can investigate the basis for such proposed Change Order."

9 62. As used in Section 11.5.4 of the Design-Build Contract, the term "materials"
10 includes any pieces of TW-2 that were recovered from the TBM, as well as other
11 materials relating to Proposed Change Order #250, such as the boulders.
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13 63. STP's duty, under Section 11.5.4 of the Design-Build Contract, to preserve all
14 "materials" arose no later than December 12, 2013. That section does not require
15 that WSDOT request access to such materials.
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17 64. WSDOT repeatedly requested that STP preserve all pieces of steel pipe or other
18 metal recovered from the TBM. STP understood the request and the obligation to
19 preserve such materials and provide access to WSDOT.
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21 65. STP promised to preserve all physical evidence, including the boulders and the
22 pieces of TW-2 and other metal recovered from the TBM.
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24 66. Piece #1, which was recovered from the surface, was placed next to the pallet. Piece
25 #4, which was pulled out of the ground, was stored at a separate location due to its
size.
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27 67. Pieces #2, #3, and #5 and the boulders were on the wooden pallet in the yard of the
28 jobsite. The evidence was contradictory as to whether Pieces #6, #7, #8, and #9

were all on the wooden pallet. There is no compelling evidence to show that Pieces #6, #7, #8, #9, or the unnumbered piece were ever placed on the wooden pallet. There is no photographic evidence in the record that shows Pieces #6, #7, #8, #9, or the unnumbered piece were on the wooden pallet.

68. The photographic evidence shows that Pieces #7 and #8 were still on a steel pallet underground five days after the pieces were recovered from the TBM. The photographic evidence also shows that Piece #6, which was recovered above-ground in the muck bin, was taken down into the tunnel and was pictured on the steel pallet (not the wooden pallet) in the tunnel on January 22, 2014—20 days after Piece #6 was recovered.
69. To the extent STP had a policy (perhaps better described as an understanding among some STP representatives) of placing pieces of steel recovered from the TBM on the wooden pallet within one day, the Court finds that STP did not consistently comply with this policy or understanding.
70. The location of the pallet was at the job site inside the STP yard, which was a five-acre private site surrounded by fencing and constantly guarded. Anyone accessing the yard had to pass through a security checkpoint and show credentials because as the job yard was not open to the public. The pallet with the steel pieces and boulders was located approximately 100 feet from the security gate.
71. Mr. Huber knew that the pallet was on the east side of STP-controlled work yard, out of sight of the gates, and near a portable toilet. The pallet's location was described by Mr. Neagoy in his email and was also confirmed by photographs.
72. Mr. Hauser and Mr. Huber each testified that they considered the pallet's location safe and secure. However, Mr. Houser and Mr. McMahon did not intend to permanently store the steel pipe pieces and boulders on the pallet in the yard.

1 73. Mr. Hauser and Mr. Huber believed everyone on the site knew the importance of
2 the items on the pallet. However, STP did not employ any systematic way of
3 informing every person with access to the pallet of its importance. Nor did anyone
4 at STP put a label or sign on or near the pallet.

5 74. Mr. Hauser and Mr. McMahon intended the pallet in the yard to be a temporary
6 location for the steel pipe pieces and boulders. They wanted the items moved to an
7 STP warehouse designated as T-106.

8 75. The T-106 warehouse was locked, guarded, and covered. STP monitored access to
9 the warehouse. Only those authorized personnel needing access to items at the
10 warehouse would have access. Piece #4 and Piece #6 were stored at the T-106
warehouse.

11 76. Mr. McMahon intended to send the pallet and its contents to the T-106 warehouse
12 to be protected, even though the pieces continued to be looked at and photographed.
13 The pallet remained at its location with the materials for a few weeks, but the exact
14 time and date remains unknown. Mr. McMahon testified credibly that "every time
15 I'd walk by, I'd say to myself, I'm going to move those to the warehouse."

16 77. No one suggested or set a specific date to move the materials to the warehouse.
17 STP did not issue a memorandum, email, or any writing to everyone with access to
18 the job site to preserve the pieces of steel pipe and boulders.

19 78. Several pieces of pipe and the boulders were placed on a wooden pallet. There
20 was nothing on or near the pallet indicating that the materials on the pallet should
21 not be discarded. There was no tape or flags marking the contents of the wooden
22 pallet as something that should be protected.

23 79. Mr. Hauser expected all of the physical evidence be taken to T-106, an indoor
24 warehouse facility.

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1 80. Mr. McMahon testified that he saw the pieces of pipe and boulders numerous
2 times, and considered moving them to the T-106 warehouse, but did not do so.

3 He said:

4 All the pieces were on a pallet sitting beside our gantry crane. And I said
5 – I intended to move all the pieces to the warehouse so they would be
6 protected in the warehouse. But people was [sic] looking for these pieces,
7 and they were still taking photographs of them and they were still
8 measuring them and all that kind of stuff. So they were there for quite a
9 few weeks. And every time I'd walk by, I'd say to myself, I'm going to
10 move those to the warehouse.

11 81. Mr. McMahon testified:

12 Well I intended to send them to the warehouse. I kept looking at them and
13 I'm going to send them to the warehouse tomorrow, tomorrow, and then I
14 was getting busy here and there and I forgot about it. And then when I did
15 remember, I said, Okay, I got to send them to the warehouse and then all
16 of a sudden they disappeared.

17 82. STP did not provide a reason or excuse for failing to take the pieces of pipe and
18 boulders to the T-106 warehouse, where they would have been more secure than
19 the location on a pallet in the yard with no signage.

20 83. The T-106 warehouse was two to three miles away from the five-acre job site
21 yard. It was a covered, locked and guarded facility. Pieces of the TBM were
22 stored at the T-106 warehouse during the repair and rebuild of the TBM.

23 84. Even after Mr. Hauser instructed that the materials be taken to the T-106
24 warehouse, no one did so. All parties would have had access to inspect and
25 photograph the materials at the T-106 warehouse. Nothing prevented STP
26 from moving the materials to the warehouse.

27 85. Pieces #4 and #6 were sent to the T-106 indoor warehouse for storage. Piece #4
28 is 55-feet long and Piece #6 consists of several fragments totaling approximately
 two feet of TW-2.

1 86. WSDOT has inspected and photographed Piece #4 at the T-106 warehouse on
2 numerous occasions. WSDOT has also had the opportunity to inspect the
3 individual steel fragments making up Piece #6.

4 87. Several WSDOT employees saw the steel pieces of TW-2 come through the
5 TBM, or saw them immediately afterwards, and took pictures of some of the
6 pieces. Some WSDOT representatives took photographs and noted in
7 contemporaneous written documents their firsthand observations of some of the
8 steel pieces and boulders.

9 88. STP representatives recorded their similar firsthand observations in
10 contemporaneous photographs and documents and shared them with WSDOT.

11 89. Mr. Preedy saw the wooden pallet and some photographs of items on the pallet.
12 Mr. Preedy also testified credibly that there were also photographs of some of the
13 steel pieces in the WSDOT archives database.

14 90. WSDOT inspectors and other personnel saw many of the pieces of pipe as they
15 were removed from the TBM, on the job site, or on the pallet where they were
16 stored.

17 91. WSDOT personnel took multiple photographs of the pieces of steel that were
18 recovered from the TBM. This includes steel pieces recovered on January 2, 2014.

19 92. WSDOT witnessed the January 2014 hyperbaric interventions and reviewed the
20 intervention videos, which were provided by STP in response to WSDOT's request.
21 Further, many personnel sitting outside of the TBM were able see the intervention
22 videos as they were being recorded.

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1 93. Video of the hyperbaric interventions conducted by STP on January 17, 2014 show
2 a piece of steel casing of TW-2 found between spokes K and L of the cutterhead,
3 and show another piece of steel casing between spokes L and M of the cutterhead.
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5 94. During December 2013 and January 2014, WSDOT regularly received reports from
6 its employees, contractors, and consultants of pieces of steel entering the TBM,
7 which were identified as pieces of TW-2 and were photographed, videoed, and
8 described as they were found.
9

10 95. On an unknown date, all pieces of the steel pipe except Piece #4 and Piece #6 and
11 the boulders were lost or destroyed. The loss or destruction was not immediately
12 discovered.
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14 96. At the time of the evidentiary hearing in this case, Mr. McMahon was apparently
15 out of the country and STP was unable to reach him to testify live to provide any
16 further explanation.
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18 97. In Mr. McMahon's testimony through video deposition, it was clear that he did not
19 know what happened to the items on the pallet until after he asked the day foreman
20 to move the pallet to the warehouse and the foreman reported back to Mr. McMahon
21 that it was not there. In Mr. McMahon's testimony, he said it was his fault because
22 he should have moved the pipe pieces. According to Mr. McMahon, about two
23 weeks before making the request of the day foreman to move the pallet, a night
24 foreman, at his direction, gave a direction to clean the place up. This was also
25 described as a routine directive to clean up the yard. It was only later that Mr.
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1 McMahon understood that the direction to clean the place up, he believed, resulted
2 in the items on the pallet being recycled, thrown away, or otherwise discarded.
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4 98. It was sometime in February 2014, that Mr. Huber, at the request of Mr. McMahon,
5 finally went to move the pallet with the steel pipe pieces and boulders to the
6 warehouse. When he went to move the pallet, Mr. Huber discovered the pallet was
7 not in its usual place. No one could tell him where it had gone. He and other STP
8 personnel searched the job site and the T-106 warehouse but did not find the pallet,
9 the steel well casing pieces, or the boulders.
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11 99. At that time, Mr. Huber informed Mr. McMahon that the pallet was missing. Mr.
12 McMahon was “pretty irate” upon hearing this news. Mr. Huber does not know
13 when the pieces of pipe were actually lost or destroyed.
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15 100. Mr. McMahon also made efforts similar to Mr. Huber’s to locate the pallet and its
16 contents. On the day he found out that the items were missing, Mr. McMahon had
17 a meeting of around 50 people, described as the whole mining crew who were
18 working on the job and told them that the pieces of steel pipe “can’t go missing off
19 the job.” The Court has seen no documents showing exactly when this meeting
20 occurred or what was said. Mr. Houser did not recall such a meeting, but it would
21 have occurred before he was aware of the missing items.
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23 101. Mr. McMahon subsequently determined, around the end of February 2014, that an
24 equipment operator carrying out the earlier order to clean up the yard had
25 mistakenly placed the pipe pieces in a dumpster for disposal of waste steel. By this
26 time, the dumpster had already been removed and the steel pieces were gone.
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1 102. The night equipment operator was identified as Jan Michael Allen. Mr. Allen did
2 not testify at the Evidentiary Hearing. Mr. Hauser did not speak directly to Mr.
3 Allen. The night foreman was Edgar Valles. Mr. Valles did not testify at the
4 Evidentiary Hearing. Both Mr. Allen and Mr. Valles were still employed by STP
5 on August 29, 2017.

6 103. Neither Mr. McMahon nor Mr. Huber testified about an explanation for the loss or
7 destruction of the boulders. Mr. Hauser testified that the boulders "should not have
8 been" placed in the metal recycling container. He does not know what happened
9 to the boulders.

10 104. It is not credible that, as Mr. Houser testified, everybody at STP was instructed to
11 hold on to everything that came out of the TBM, including boulders, pieces of pipe,
12 and debris. This testimony is not credible because when asked how a night worker
13 would have taken pieces to the recycling dumpster, he responded that he had no
14 explanation.

15 105. Mr. Huber visited and searched four waste disposal sites but could not find the
16 missing pieces of steel or the boulders.

17 106. When Mr. McMahon and Mr. Huber informed Mr. Hauser that the pieces were
18 missing, Mr. Hauser was genuinely upset, thinking he "was going to puke," "was
19 going to vomit," "couldn't believe it," and "didn't want to believe it." Mr. Hauser
20 then personally searched for the missing items and made further inquiries.

21 107. Mr. Hauser delayed in reporting the missing items to his superior. The reason for
22 the delay was that Mr. Hauser thought he would be fired.

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1 108. STP representatives Mr. Magro and Mr. Garnero suspected that the pipe pieces had
2 been lost by March 5, 2014, based upon email correspondence. Mr. Magro
3 regularly attended the weekly progress meetings.
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5 109. The Court finds certain prior testimony, included as an exhibit at the Evidentiary
6 Hearing, regarding the existence of the missing pieces and boulders after February
7 2014, not credible. This includes the prior testimony of Michael Fehrenbach that
8 he saw pieces of TW-2 and boulders on a wood pallet after July 2014, and the prior
9 testimony of Alastair Biggart that he saw pieces of TW-2 on the job site in May
10 2015.
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12 110. Mr. Hauser, even after learning what had happened to the pipe pieces, continued to
13 hope they might be found simply because he did not want to accept that they were
14 gone.
15

16 111. Mr. Hauser kept handwritten journals in spiral notebooks during his time on the
17 tunnel project, most of which were produced in discovery. The journal volume
18 covering the time period of December 2013 through February 2014 cannot be
19 located and are lost or destroyed.
20

21 112. Mr. Hauser testified credibly regarding the typical entries in the journal, the purpose
22 of the journal's entries, and his reliance on those entries. Each page was dated, and
23 often the entries were organized in bullet points. After each spiral notebook was
24 filled up, it was retained in a drawer in a credenza in his office near the job site.
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26 113. Mr. Hauser's journals recorded what he did, where he went, and to whom he spoke.
27 Mr. Hauser relied upon the entries in the journals as the most accurate
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1 representation of what he was doing, where he was going, and who he was speaking
2 to. Mr. Hauser would defer to the notes in his journal, even more than his own
3 memory. Entries in the journal would remind Mr. Hauser of events on the project.
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5 114. Although sometimes referenced as personal journals, the entries in the journal were
6 related to the tunnel project associated with Mr. Hauser's employment with STP.
7 The only personal entries related to personal appointments that might impact his
8 work schedule. The journals were the exclusive means by which Mr. Hauser
9 maintained such notes.

10 115. Mr. Hauser testified credibly that he made notes or journal entries during the time
11 period of December 2013 to February 2014, including notes about the instructions
12 he gave to STP employees about the preservation of the steel pipe and boulders.
13 However, the specific content of the missing journal entries is unknown.
14 Documents were admitted at the evidentiary hearing, including photographs,
15 relating to the time period associated with the missing journals.

16 116. When Mr. Hauser was asked by counsel to provide his handwritten journals for
17 production in this litigation, he provided all the journals that were maintained in the
18 drawer in the credenza to counsel. Before providing the journals to counsel, he did
19 not check the dates or verify that the notebooks covered all relevant time periods.
20 He simply turned over all the notebooks he had, and Mr. Hauser believed that the
21 notebooks included the timeframe of December 2013 to February 2014.
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23 117. The attorney that Mr. Houser gave the notebooks to was identified as "Jaime," an
24 attorney for Dragados, STP's joint venture partner.
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1 118. After gaps in the time periods of the journals were brought to Mr. Hauser's
2 attention, he searched for the missing journals.

3 119. There were three journal volumes which were not initially produced. A notebook
4 with journal entries covering a different time period (July to September 2014),
5 along with other items, was stolen along with a laptop computer and other items
6 when Mr. Hauser's truck was broken into on or about September 26, 2014. That
7 volume was not produced in discovery. Mr. Hauser found one additional volume,
8 which was subsequently provided to counsel. That volume included March through
9 September 2014. The failure to produce those journal notebook is not part of
10 WSDOT's Motion for Spoliation Sanctions.

11 120. Despite several searches, Mr. Hauser has not located the remaining
12 missing journal volume for the period of December 2013 to February 2014.

13 121. Mr. Hauser does not know and could not explain what happened to the journal
14 volume covering the period December 2013 through February 2014.

15 122. Mr. Hauser did not intentionally destroy or hide the missing journal volume that is
16 the subject of the Motion. The importance of the missing journal volume is
17 heightened because of the inability of witnesses to identify specific communication
18 and dates of activities associated with the missing pipe pieces and boulders.

19 123. STP did not intentionally destroy or hide the missing pipe pieces and boulders.

20 124. It was sometime in February 2014 that Mr. Hauser discovered that the steel pipe
21 pieces and boulders were missing. Mr. Hauser delayed telling WSDOT that the
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1 items were missing until he was “forced” to do so after WSDOT made a written
2 request in February 2015.

3 125. Based upon Mr. Hauser’s testimony, including the statement, “it’s obvious they’re
4 gone,” he knew the steel pieces and boulders would not be found. Mr. Houser was
5 simply delaying reporting what he knew was very bad news. He did not truly
6 believe that the missing pieces would be found, and he knew the importance of the
7 steel pieces and boulders. The conduct on the part of Mr. Hauser to withhold
8 information that the items were missing was done to avoid, for as long as possible,
9 making known the embarrassing fact that the items could not and would not be
10 produced.

11 126. Throughout 2014, STP did not inform WSDOT that the pieces of steel pipe and
12 boulders had been lost or destroyed.

13 127. Mr. McMahon testified that he was responsible for the lost pieces and expressed
14 his regret he did not have the TW-2 pieces moved to T-106 sooner.

15 128. On February 12, 2015, Mr. Preedy wrote Mr. Dixon, stating:

16 As discussed last week and in past conversations dating back to Feb 27,
17 2014, see attached Progress Meeting Minutes, it is critical that STP take
18 reasonable steps to preserve and protect, for WSDOT’s inspection, all
19 physical evidence related to your claim for additional compensation under
20 PCO#250.

21 In the letter, Mr. Preedy asked Mr. Dixon to “please confirm that STP has preserved
22 all pieces of the TW-2 well casing and that it will continue to preserve them for
23 WSDOT’s inspection as long as PCO#250 remains in dispute.” Mr. Preedy
24 attached a number of photographs of the pieces of pipe and boulders to his letter.

1 129. The February 12, 2015, written request to STP, referenced in the preceding
2 paragraph, was reflected in the meeting minutes of the weekly progress meeting
3 on February 19, 2015, which state: "WSDOT has requested STP locate and make
4 available recovered fragments of Test Well 2 casing and TMB metal and seal
5 materials."

6 130. In response to the February 12, 2015, written request, STP Project Manager Chris
7 Dixon sent a letter to DOT dated February 20, 2015. In the letter, STP stated "the
8 preservation of the TW-2 well casing pieces has not been the subject of
9 continuing discussions for the past year and there is no contractual requirement
10 that STP preserve all pieces of the TW-2 well casing." Mr. Dixon's letter also
11 stated, "the only piece of the TW-2 well casing that has been preserved by STP is
12 the 55-foot long piece that STP pulled from the ground after the TBM
13 encountered the TW-2 well casing on December 4, 2013." Mr. Dixon's letter,
14 dated February 20, 2015, was the first actual notification to WSDOT that piece #4
15 was the only piece of steel pipe that was retained by STP. The letter contained no
16 excuse or reason that only one piece was retained except for the explanation that
17 preservation of the pieces was not required.

18 131. Mr. Dixon did not testify at the Evidentiary Hearing, and therefore provided no
19 further explanation of the documents in which he is mentioned, including letters,
20 emails, and weekly progress meetings.

21 132. On April 17, 2015, in a letter to STP, Mr. Preedy reiterated that "it is critical that
22 STP take reasonable steps to preserve and protect, for WSDOT inspection and
23 use, all physical evidence related to your claim for additional compensation under
24 PCO #250."

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1 133. In a letter dated October 3, 2016, STP's counsel stated that STP "does not possess
2 the remaining steel well casing fragments or the two boulders." The letter
3 provided WSDOT, apparently for the first time, an explanation that the missing
4 pieces of pipe were likely placed in the steel waste dumpster and the two boulders
5 went to the normal waste dumpster in February 2014.

6 134. WSDOT was not responsible for the loss or destruction of the pieces of TW-2 and
7 boulders.

8 135. Experts retained by all parties to this litigation cannot inspect, measure, or test the
9 missing pipe pieces and boulders. Although various employees and experts for
10 WSDOT and STP were present on the jobsite before the items went missing, many
11 experts in this litigation were not retained until the items went missing.

12 136. WSDOT's Mr. Preedy initially thought that TW-2 did not cause the TBM to stop
13 on December 6, 2013, and that nothing other than clogging of the TBM caused that
14 stoppage. The cause of the TBM stoppage remains contested.

15 137. Mr. Kennedy, a WSDOT consultant, issued a series of reports in December 2013
16 and January 2014 expressing his opinion that the TBM's inability to advance was
17 most likely caused by a clogged cutterhead and the encounter with the pipe was less
18 likely to be the cause.

19 138. WSDOT's Strategic and Technical Advisory Team (STAT) issued a memorandum
20 to WSDOT management based on its January 21 and 22, 2014, site visit concluding
21 that the pipe "would present little challenge for a TBM cutterhead" and suggesting
22 the encounter with the pipe was not the cause of the stoppage.

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1 139. On November 3, 2015, WSDOT retained Keith Cline as an expert in this litigation.
2 Mr. Cline testified credibly as an expert at the Evidentiary Hearing. In his current
3 position, Mr. Cline primarily performs metallurgical failure analysis, involving the
4 compilation of information, performing tests, and evaluating the data to determine
5 the probable cause of a failure. Mr. Cline was retained by WSDOT to perform
6 failure analysis related to the stoppage of the TBM.

7 140. Mr. Cline testified credibly that the loss or destruction of the pieces of pipe or the
8 boulders impeded his ability to perform his analysis.

9 141. Mr. Cline performed inspections and examinations at STP's T-106 warehouse on
10 at least ten occasions between November 3, 2015, and January 10, 2019.

11 142. On several occasions during those inspections, Mr. Cline examined the 55-foot
12 piece of TW-2 (Piece #4) and the fractured pieces of TW-2 (Piece #6) retained at
13 T-106. His examinations of those pieces were helpful to his analysis.

14 143. Mr. Cline took measurements of Piece #4 and was able to determine its wall
15 thickness to be "approximately three-eighths of an inch."

16 144. Mr. Cline was able to determine that the "fractured end" of Piece #4 interacted with
17 the TBM and "broke in a ductal [sic] manner" and that the pieces in the bucket
18 (Piece #6) were "extremely deformed and distorted." Mr. Cline testified that
19 because of the assertion that the steel in TW-2 was sufficiently strong to damage
20 the cutter tools, it would be of particular importance to be able to examine the
21 surfaces of the missing pieces of pipe.

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1 145. Mr. Cline was also able to examine photographs of the missing pieces of TW-2.
2 Mr. Cline acknowledged that these photographs are “useful” and “important
3 evidence,” but they do not substitute for the actual physical evidence. For instance,
4 the photographs may not show small, imbedded pieces of cutting tools. That
5 information would be relevant to the question of whether the missing pieces
6 damaged the cutting tools.

7 146. Mr. Cline distinguished the missing pieces of pipe from the long, cut-off piece
8 (Piece #4) and the small pieces in the bucket (Piece #6) because the missing pieces
9 were intermediately damaged by comparison and “most likely interacted to the
10 greatest extent with the tunnel boring machine and the cutting tools.”

11 147. Based on his inspections at T-106 and the pictures of TW-2 that he has looked at,
12 Mr. Cline was able to draw some conclusions about TW-2, including its diameter,
13 total length, wall thickness, and volume. In addition, Mr. Cline was able to
14 determine that cutting tools on the TBM encountered TW-2, which caused TW-2
15 to be deformed. Mr. Cline also determined that the tensile strength of TW-2 was
16 between 48,000 and 78,000 psi. Mr. Cline could also calculate the force required
17 to push TW-2 out of the ground.

18 148. Mr. Cline acknowledged he had “no reason to believe” metallurgical testing would
19 reveal a tensile strength that deviated greatly from the range he calculated. In fact,
20 Mr. Cline admitted he did not conduct any tensile strength testing on Piece #4 or
21 Piece #6.

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1 149. There was credible testimony from several witnesses that carbide tips of the
2 cutting tools can be fractured, broken, or damaged when they strike granite
3 boulders.

4 150. Mr. Cline testified that he understands the carbide cutting tools to be much
5 stronger than the steel pipe.

6 151. Mr. Cline testified that if the pieces of pipe and boulders had been retained, he
7 would have performed a number of common tests on the physical evidence. For
8 example, Mr. Cline testified that he would have performed visual analysis,
9 dimensional analysis, optical microscopy, scanning electron microscopy,
10 compositional analysis, metallographic analysis, mechanical testing, hardness
11 testing, and tensile testing. However, Mr. Cline testified that each of those tests
12 has not been performed on the pieces that are currently available.

13 152. Mr. Cline wanted to evaluate the granite boulders that have been lost or destroyed
14 to “show in the surfaces how they may or may not have been damaged by
15 interacting with the cutter bits” and that “[p]otentially, we could see embedded
16 particles within that - - within those boulders.”

17 153. Mr. Cline does not believe that Piece #5 is TW-2 for several reasons. However,
18 Mr. Cline is unable to determine with certainty what Piece #5 is because it is
19 unavailable to him.

20 154. STP’s expert, Alistair Biggart, did not testify at the Evidentiary hearing, but he
21 testified at a previous deposition and that deposition testimony was admitted as an
22 exhibit at the evidentiary hearing. The Court found his testimony less credible.
23 Mr. Biggart stated that, had STP not lost or destroyed Piece #5, he would have
24 visually inspected it, taken measurements to see if it was eight inches in diameter,
25 measured the thickness of the wall to see if it was TW-2 or a different piece of
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1 metal, observed how it was torn, and examined any scrapes or teeth marks on it
2 that might indicate how it was damaged.

3 155. In early 2014, STP retained Dr. Richard Klopp to conduct a root cause analysis to
4 determine the cause of the damage to the TBM and the cause of the stoppage of
5 the TBM. Dr. Klopp has a Ph.D. in an engineering area called “the mechanics of
6 materials.”

7 156. In order to conduct his work as an expert on behalf of STP, Dr. Klopp reviewed
8 and relied upon the TBM “telemetry data,” “solid models of the machine,” “survey
9 data,” and the “narrative record” of “what was happening when.”

10 157. It is clear that Dr. Klopp’s methods are quite different from Mr. Cline’s.

11 158. Dr. Klopp testified credibly that photographs of the pieces of the pipe and
12 boulders were largely sufficient, and that the underlying physical evidence was
13 not necessary.

14 159. The Court finds that it is true that pictures of the missing pieces and boulders, as
15 well as the remaining pieces that are available, are sufficient for many
16 conclusions, but, as Mr. Cline stated, refining opinions and further testing requires
17 physical evidence.

18 160. It cannot be determined whether bits of carbide from the cutter teeth were
19 embedded in the missing pieces of steel well casing.

20 161. Dr. Klopp testified that if the granite boulders were available, a joint inspection
21 could be done, and he would “probably weigh them, measure them, figure out
22 exactly what kind of granite it was.”

23 162. Mr. Cline testified that he prepared “several” testing protocols for Piece #4 and
24 Piece #6 and submitted them to counsel for WSDOT. However, there is no
25 evidence that WSDOT ever submitted any proposed protocol to STP.

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1 163. It is Mr. Cline's opinion (which STP contests) that TW-2 did not cause "significant
2 damage" to the cutter bits.

3 164. In rendering his opinion, Mr. Cline performed an analysis, based on available
4 industry and supplier resources, of known material property data and metallurgical
5 properties of the steel that made up TW-2 and the components that made up the
6 cutter bits. Mr. Cline also relied upon his "visual observations of the available
7 pieces of TW-2."

8 165. Mr. Cline's analysis supporting his opinion that TW-2 did not significantly damage
9 the cutter bits was not dependent on physical testing of TW-2 or cutter bits.

10 166. There is no evidence in the record of these proceedings that STP ever denied a
11 request by WSDOT to conduct any testing on the pieces of TW-2 retained by STP
12 at T-106.

13 167. Dr. Klopp reviewed the 55-foot piece of TW-2 and the broken fragments of TW-2
14 that have been maintained by STP at T-106. Dr. Klopp concluded that the torn end
15 of the 55-foot piece of TW-2 was damaged by the TBM cutter bits.

16 168. Dr. Klopp also reviewed photographs of pieces of TW-2 and cutter bits at T-106.

17 169. Dr. Klopp testified that his analysis of both the physical evidence of TW-2 and the
18 photographs taken of TW-2 does not impact or change the TBM telemetry
19 (computer) data.

20 170. Using the TBM telemetry data, Dr. Klopp performed a statistical linear regression
21 analysis, which was not dependent on an examination of the physical pieces of TW-
22 2. Dr. Klopp also performed a finite element analysis, which is a "computer-based

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structural analysis" of the TBM. Dr. Klopp's finite element analysis was not dependent on a physical examination of the pieces of TW-2.

171. Based on his analysis, Dr. Klopp concluded that the TBM hit TW-2, which “precipitated a rather abrupt change in the trending, which then went downhill,” and then the TBM thrust seals were “irreversibly damaged at 8:03 a.m. on December 6, 2013.” Dr. Klopp’s conclusions were not dependent on a review of the physical evidence of TW-2.
172. Based on his review of the 55-foot piece of TW-2 and broken fragments of TW-2 maintained at T-106, as well as the photographs of the damaged pieces of TW-2, Dr. Klopp concluded that TW-2 was damaged by the TBM cutter bits.
173. Dr. Klopp did not physically see or conduct any testing on the missing pieces of TW-2.
174. There is no evidence in the record of these proceedings that any of STP’s expert witnesses conducted any testing on missing pieces of TW-2.
175. Dr. Klopp relied on the existing pieces of TW-2 and the available photographs of TW-2, as well as other evidence, as sufficient to support his opinions.
176. Dr. Klopp testified that access to the missing pieces of TW-2 would not change his opinions that: (a) the TBM encountered TW-2 on the morning of December 4, 2013, (b) mining efficiency declined from December 4 when the TBM hit TW-2 to when it stopped on December 6, and (c) TW-2 interacted with the cutter bits on the face of the TBM.

1 177. Dr. Klopp concluded that Piece #5 recovered on January 2, 2014 was a part of TW-
2 2. Dr. Klopp's conclusion was based on the fact that Piece #5 was recovered from
3 the muck bin the same day that Piece #6 was recovered, and his review and analysis
4 of photographs of Piece #5, photographs of other pieces of TW-2, and existing
5 pieces of TW-2.

6 178. TW-2 was made up of eight individual sections of steel. There is no evidence in
7 the record indicating the specific origins of these eight individual sections of TW-
8 2 that were installed by WSDOT. Dr. Klopp testified that even if all those sections
9 were available for chemical testing, the results would not confirm whether or not a
10 particular piece of recovered steel was part of TW-2. As Dr. Klopp testified, there
11 is no evidence that any of those eight pieces came from the same steel mill or were
12 purchased at the same time.

13 179. The testimony of Mr. Kline and Dr. Klopp makes clear that the missing pieces of
14 steel pipe and boulders are important evidence. It is not necessary that both sides
15 agree that the missing evidence is important for the Court to make such a finding.

16 180. No evidence was presented that any damaged cutter tools that were removed from
17 the TBM and held in STP's possession after the TBM stoppage on December 6,
18 2013, were lost or destroyed by STP. Damaged cutter tools are not the subject of
19 the Motion before the Court.

20 181. To the contrary, STP has preserved and made available for inspection to WSDOT
21 and its consultants and experts the damaged cutter tools removed from the TBM.

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1 Further, STP attempted to identify where the preserved cutter tools had been located
2 on the TBM.

3 182. Following the TBM's encounter with TW-2 on December 4, 2013, WSDOT's
4 inspectors, including Jake Taylor, observed and mapped STP's change-out of the
5 TBM cutter tools and photographed the cutter tools as they were removed from the
6 TBM.

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8 183. WSDOT's Strategic and Technical Advisory Team and (STAT) inspected the cutter
9 tools on the TBM during its site visit on January 21 and 22, 2014.

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11 184. In its discovery responses, STP has identified (a) the specific cutter tools it
12 concluded were damaged by TW-2; (b) cutterhead diagrams indicating the location
13 of the damaged cutter tools; (c) the cutter tools ripped off the cutterhead by TW-2
14 and never recovered; (d) photographs of the recovered damaged tools with one
15 exception; (e) four of the actual damaged cutter tools located at T-106; and (f)
16 STP's basis for concluding that these cutter tools were damaged by TW-2 and not
17 boulders. WSDOT has had access to these cutting tools and has inspected them on
18 numerous occasions.

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20 185. The Court is not aware of formal requests for the preservation of cutter tools made
21 to STP by WSDOT.

22

23 186. The materials that were located on Mr. Magro's desk at one time were placed in a
24 box (Box 10) and sent to T-106. Box 10, and the materials and jars located inside
25 of it, still exists and was stored at T-106 until recently when STP's counsel took
26 possession of the box after an agreement of the parties and Court order.

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1 187. There were only three jars (labeled 2, 4, and 5) containing steel and rubber seal
2 pieces that STP collected from the TBM. This is consistent with the testimony of
3 Mr. Houser and Mr. Critchfield.

4 188. Mr. McMahon had in his office carbide bits or fragments thereof that had come off
5 of the cutterhead, contained in jars or bowls. Mr. McMahon testified that these jars
6 or bowls of carbide bits "disappeared" after the pieces of pipe and boulders went
7 missing, but that testimony was unclear. The Court cannot make any further
8 findings regarding that description.

9 189. Jars 2, 4, and 5 were later moved to Mr. Magro's desk and then placed in Box 10
10 and sent to T-106 for storage, until the parties and this Court agreed that STP's
11 counsel would retain those jars.

12 190. The Motion before the Court does not involve any lost, missing, or destroyed jars
13 or small pieces of metal, jars, or rubber seal or carbide pieces, which are not
14 included in paragraph 2 above.

18 19 **CONCLUSIONS OF LAW**

20 1. STP lost or destroyed the following pieces of the steel pipe presumed to be
21 associated with TW-2: Piece #1, Piece #2, Piece #3, Piece #7 and Piece #8. STP
22 also lost or destroyed Piece #5.

23 2. STP lost or destroyed the two boulders removed from the area around the TBM
24 on December 5, 2013.

25 3. STP lost or destroyed the missing volume of the Houser journal.

1 4. Courts often define spoliation within the context of the facts of the particular case.

2 Although the definition sometimes includes intentional acts, it is clear that

3 intentional destruction of evidence following a duty to retain the evidence is not

4 always required.

5 5. Spoliation includes the destruction or failure to preserve evidence for another's

6 use in reasonably foreseeable litigation. A Court's conclusion that spoliation

7 occurred can only be reached after consideration of the facts of a particular case

8 and consideration of a number of factors. The case of *Henderson v. Tyrrell*, 80

9 Wn. App. 592 (1996), is instructive in the determination of whether spoliation

10 occurred here.

11 6. It is important to analyze whether a duty to preserve evidence exists, and, if so,

12 when the duty arises. Whether a party violated a duty to preserve evidence is an

13 important factor. Under Section 11.5.4 of the Design-Build Contract, STP had a

14 duty to preserve all documents (including the missing Hauser journal volume) and

15 "materials" (including the missing pipe pieces and boulders) related to its claim

16 for a Differing Site Condition (DSC) claim against WSDOT. This contractual

17 duty arose, at the very latest, when STP filed a DSC claim related to the TBM

18 stoppage on December 12, 2013.

19 7. In addition to the duty that arose in light of the DSC claim, WSDOT had

20 requested that the pipe pieces that STP collected from the area of the TBM be

21 preserved.

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1 8. STP, by words, documents, and actions, recognized its duty to retain pieces of
2 TW-2 and the boulders and assured WSDOT that the missing pipe pieces would
3 not be destroyed. STP had the duty to preserve all physical evidence related to it
4 DSC claim, and promised to do so, but failed.

5 9. The duty to preserve all Houser journals is less clear as its preservation was not
6 addressed by the parties at the evidentiary hearing except as addressed by the
7 Court's findings above.

8 10. In deciding spoliation, Washington Courts consider two factors: (1) the potential
9 importance or relevance of the missing evidence, and (2) the culpability or fault of
10 the adverse party. *Homeworks Constr., Inc. v. Wells*, 133 Wn. App. 892, 899
11 (2006).

12 11. Whether the missing evidence is important or relevant depends on the particular
13 circumstances of the case.

14 12. The missing pipe pieces and boulders are relevant and important. The importance
15 of these items, and the intention to preserve them was repeatedly recognized by
16 STP and WSDOT. They are critical pieces of evidence in determining the
17 primary issue in this litigation, the cause of the stoppage of the TBM.

18 13. The missing volume of the Hauser journal is relevant and important. The journal
19 volume's importance is highlighted by the fact that without it, STP is unable to
20 determine when it was determined that the pipe pieces and boulders were missing
21 or document in any way the instructions given to STP employees about

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1 preservation of the pieces of pipe and the boulders. In this way, the missing
2 journal volume is connected to the missing pipe pieces and boulders.

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4 14. In weighing the importance of the evidence, the Court considers whether the
5 adverse party was given an adequate opportunity to examine it.

6 15. WSDOT had the opportunity to examine the missing pipe pieces and boulders.
7 However, the window for that examination was limited, and the circumstances in
8 the relatively short period of time (December to February) were such that it was
9 not an adequate opportunity. Without Piece #5, the parties disagree, and this
10 Court cannot determine with certainty, whether Piece #5 was part of TW-2.
11 WSDOT had not retained Mr. Cline and other litigation experts at that time. The
12 missing pipe pieces and boulders thus results in an investigative disadvantage to
13 WSDOT.

14

15 16. WSDOT was never given the opportunity to review the missing journal volume.

16 17. Because the content of the missing journal volume is unknown, it is difficult to
17 determine the level of investigative disadvantage to the WSDOT. However, its
18 loss or destruction has certainly made it impossible to determine some critical
19 facts concerning the loss or destruction of the pipe pieces and boulders, and there
20 is an investigative disadvantage.

21

22 18. The inability to determine the importance of the missing journal volume is the
23 very reason that the law recognizes a presumption that such evidence would be
24 unfavorable. *Pier 67, Inc. v. King County*, 89 Wn.2d 379, 385-86 (1977) ("where
25 relevant evidence which would properly be a part of a case is within the control of
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1 a party whose interests it would naturally be to produce it and fails to do so,
2 without satisfactory explanation, the only inference which the finder of fact may
3 draw is that such evidence would be unfavorable to him").
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5 19. As for culpability, the Court examines whether the party accused of spoliation
6 acted in bad faith or with conscious disregard of the importance of the evidence,
7 or whether there was some innocent explanation for the destruction.
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9 20. Neither intent nor bad faith is required to impose spoliation sanctions. *Homeworks*
10 *Constr., Inc.*, 133 Wn. App. at 900.
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12 21. By its actions and inactions, STP consciously disregarded the importance of the
13 missing pipe pieces and boulders in failing to preserve them. The loss or
14 destruction of the missing pipe pieces and boulders is not innocent or accidental.
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16 22. STP provided no explanation for the loss or destruction of the missing journal
17 volume. No innocent explanation has been provided by STP as the volume was
18 either improperly retained or preserved with the other volumes or the volume was
19 improperly separated from the other volumes without explanation and lost or
20 destroyed.
21

22 23. A finding of bad faith is not necessary for the imposition of spoliation sanctions.
23 Yet, there is substantial evidence of bad faith here with regard to the missing pipe
24 pieces and boulders.
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26 24. STP acted in bad faith by concealing from WSDOT that it had lost or destroyed
27 the pieces of pipe and the boulders.
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25. Following its discovery of the loss or destruction of the evidence, STP delayed telling WSDOT that it had lost or destroyed the pieces of pipe and the boulders, despite STP's duty to preserve such evidence and WSDOT's requests that such evidence be preserved. STP's concealment of the truth from its client was intentional.
26. Acts after the loss or destruction of evidence may not always present a basis for a spoliation ruling, yet the Court concludes that in this case the concealment was egregious and shall be a factor in deciding the remedy.
27. Standing alone, the loss or destruction of the missing journal volume may not necessarily result in a remedial sanction. However, the entire context of the spoliation issues in this case indicate that a remedial sanction may be warranted.
28. The lost or destroyed evidence, including the missing pipe pieces and boulders as the journal volume, was lost or destroyed by STP who had possession of the missing items. WSDOT has no fault in the loss or destruction of the missing evidence.
29. STP committed spoliation. WSDOT is entitled to a remedial sanction, which will be determined at a future hearing after briefing by the parties.

Dated: April 19th, 2019

Carol Murphy
Judge Carol Murphy